

Work Order ID 79157

79157

~~U/R~~

Page 1

January-23-12 7:56:35 AM

Item ID: D412-702-021

Accept

N9000040100

Setup Start *NS1*

Revision ID: ~~U/R~~

Item Name: 13-Man Shoulder Harness, 4 point

Stop *NS2*

Start Date: 23/01/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 06/02/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: MLJ

Date: 12/01/23

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

N/A

Rev N/A

100

0.00

100

DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile and create labels per PPP D412-702-021 CHG003

110

Pick Kit

0.00

110

Packaging

Memo

0.00

Packaging

120

QC4- 100% Inspect kits for completeness

0.00

120

QC

Memo

0.00

Quality Control

Ship Feb 3rd

MLJ 12-1-23

12/1/24

5/2/2016

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 79157

79157

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January-23-12 7:56:35 AM

Item ID: D412-702-021 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: U/R Stop ***NS2***
 Item Name: 13-Man Shoulder Harness, 4 point
 Start Date: 23/01/2012 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 06/02/2012 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Packaging	0.00							
130									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D412-702-021								
	Location: _____								
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									

YMF
12-02-06

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

Picklist Print

January-23-12 7:56:38 AM

Page 1

Work Order ID: 79157

79157

Parent Item: D412-702-021

D412-702-021

Parent Item Name: 13-Man Shoulder Harness, 4 point

Start Date: 23/01/2012

Required Date: 06/02/2012

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:B Removed Manufacturing 05-11-08 JLM
 IPP Rev:C06.04.03As per DSI9324 JLM
 IPP rev D 06.12.14 per ecn 871 EC
 IPP Rev:E 07-03-14 As per DSI 9351 JLM
 IPP Rev:F 07-07-28 As per Rev E JLM Verified By:ec IPP Rev.G
 11.05.31 DSI 9559 EC verified by:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN4-13A		Purchased	No			120	Each	1,386.000	4				
AN4-13A									**				
Bolt													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST357				1386					
					119449			386					
					120187			1000					
AN4-20A		Purchased	No			120	Each	594.0000	8				
AN4-20A									**				
Bolt													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				GA				98					
					116419			98					
				ST359				496					
					104016			16					
					117514			180					
					118983			100					
					119127			200					

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January-23-12 7:56:38 AM

Work Order ID: 79157

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Parent Item: D412-702-021

D412-702-021

Parent Item Name: 13-Man Shoulder Harness, 4 point

Start Date: 23/01/2012

Required Date: 06/02/2012

Start Qty: 1.00

Required Qty: 1.00

AN4-5A

Purchased

No

120

Each

110.0000

4

4

AN4-5A

Bolt

**

Location

Loc Qty

Loc Code

ST355

110

116549

6

117508

104

AN960JD416

NAS1149D0463J

Purchased

No

120

Each

0.0000

20

20

AN960JD416

Washer

D3195-041

Manufactured

No

120

Each

2.0000

2

2

D3195-041

Bracket Assembly

**

Location

Loc Qty

Loc Code

ST246A

2

77738

2

D3195-043

Manufactured

No

120

Each

3.0000

2

2

D3195-043

Bracket Assembly

**

Location

Loc Qty

Loc Code

ST246A

3

77739

3

D3196-1

Manufactured

No

120

Each

1.0000

1

1

D3196-1

Bar

**

Location

Loc Qty

Loc Code

ST260

1

74779

1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January-23-12 7:56:39 AM

Work Order ID: 79157

79157

Parent Item: D412-702-021

D412-702-021

Parent Item Name: 13-Man Shoulder Harness, 4 point

Start Date: 23/01/2012

Required Date: 06/02/2012

Start Qty: 1.00

Required Qty: 1.00

D3196-3	Manufactured	No	120	Each	3.0000	1	1
D3196-3						**	sp
Bar							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

ST260	3	
77746	3	

D3196-4	Manufactured	No	120	Each	0.0000	1	1
D3196-4						**	B79108 sp 12/1/06
Bar							

D3197-041	Manufactured	No	120	Each	0.0000	2	2
D3197-041						**	B78918 12/2/06 sp
Bar Assembly							

D3198-1	Manufactured	No	120	Each	2.0000	4	4
D3198-1						**	sp B79155 2x
Fitting							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

ST246A	2	
76095	2	

D3268-1	Manufactured	No	120	Each	16.0000	2	2
D3268-1						**	sp
Placard							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

ST246A	16	
76058	16	

D3546-1	Manufactured	No	120	Each	16.0000	2	2
D3546-1						**	12/1/04 sp
Clip							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

ST245	16	
73444	16	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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January-23-12 7:56:39 AM

Work Order ID: 79157

79157

Parent Item: D412-702-021

D412-702-021

Parent Item Name: 13-Man Shoulder Harness, 4 point

Start Date: 23/01/2012

Required Date: 06/02/2012

Start Qty: 1.00

Required Qty: 1.00

D3551-11 Manufactured No

120 Each 7.0000

13

D3551-11

Hook and Loop Tie

**

Location

Loc Qty

Loc Code

ST246A

7

76057

7

120 Each 1.0000

**

D412-702-069

D412-702-069

Grommet

Location

Loc Qty

Loc Code

FG125

1

74080

1

120 Each 15.0000

**

D4387-041

D4387-041

Harness Assembly

Location

Loc Qty

Loc Code

quar

5

72273

5

ST263

10

77490

10

120 Each 4.0000

**

D4387-043

D4387-043

Harness Assembly

Location

Loc Qty

Loc Code

ST263

4

77493

4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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January-23-12 7:56:39 AM

Work Order ID: 79157

79157

Parent Item: D412-702-021

D412-702-021

Parent Item Name: 13-Man Shoulder Harness, 4 point

Start Date: 23/01/2012

Required Date: 06/02/2012

Start Qty: 1.00

Required Qty: 1.00

MS21042L4

Purchased

No

120

Each

7,043.000

12

12

**

MS21042L4

Nut

Location

Loc Qty

Loc Code

ST300

7043

117441

51

117601

342

118451

133

119017

1517

119075

5000

MS24694-S152

Purchased

No

120

Each

53.0000

8

8

**

MS24694-S152

Screw

Location

Loc Qty

Loc Code

ST290

53

116440

1

119108

52

MS24694-S154

Purchased

No

120

Each

42.0000

8

8

**

MS24694-S154

SCREW

Location

Loc Qty

Loc Code

ST290

42

119022

42

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

QTY -021	QTY -023	QTY -025	QTY -027	QTY -029	QTY -035	Part Number	Description
X						D412-702-021	Dart 13-Man Shoulder Harness Kit, 4-point
	X					D412-702-023	Dart 5-Man Forward Facing Shoulder Harness Kit, 4-point
		X				D412-702-025	Dart 4-Man Aft Facing Shoulder Harness Kit, 4-point
			X			D412-702-027	Dart 4-Man Side Facing Shoulder Harness Kit, 4-point
				X		D412-702-029	Dart 1-Man Forward Facing Shoulder Harness Kit, 4-point
					X	D214-702-035	Dart 5-Man Aft Facing Shoulder Harness Kit, 4-point, for Bell 214B/B-1
1	1		1	1		D412-702-069	GROMMET KIT
2	2					D3195-041	BRACKET
2	2					D3195-043	BRACKET
1	1					D3196-1	BAR
1			1			D3196-3	BAR
1			1			D3196-4	BAR
2	2					D3197-041	BAR
4		4				D3198-1	FITTING
2	2					D3268-1	PLACARD
9	5		4	1		D3446-041	HARNESS ASSEMBLY, 4 POINT
4		4				D3446-043	HARNESS ASSEMBLY, 4 POINT
					5	D3446-045	HARNESS ASSEMBLY, 4 POINT
13	5	4	4	1	5	D3551-11	HOOK AND LOOP TIE
2	2					D3546-1	CLIP
4		4				AN4-5A	BOLT
4	4					AN4-13A	BOLT
8		8				AN4-20A	BOLT
20		20				AN960JD416	WASHER (OR NAS1149D0463J)
12		12				MS21042L4	NUT (OR MS21042-4)
8	2		6	2		MS24694-S152	SCREW
8	2		6	2		MS24694-S154	SCREW

QTY -069	Part Number	Description
X	D412-702-069	GROMMET KIT
24	D3619-2	GROMMET
1	D3619-2T1	HOLE PUNCH
1	D3619-2T2	STRIKER BLOCK
1	D3619-2T3	PUNCH
1	D3619-2T4	DIE

REFERENCE ONLY

DART SERVICE INSTRUCTION

TO AMEND IIN-D412-702-1 REV. A,
AND ICA-D412-702 REV. 4 OR EARLIER APPROVED REVISIONS
REF. TCCA STC: SH04-7
REF. FAA STC: SR01997NY
REF. EASA STC: EASA.IM.R.S.00710

PURPOSE

The purpose of this DSI is to outline the replacement of existing D3446-041/-043 Shoulder Harnesses with the new and improved D4387-041/-043 Shoulder Harnesses.

CHANGE

For the following Kits, the D4387-041 and D4387-043 Shoulder Harnesses respectively replace the D3446-041 and D3446-043 Shoulder Harnesses as follows:

Old Harness P/N	Used On	New Harness P/N	Effectivity
D3446-041	D412-702-021	D4387-041	CHG 003 and subsequent
	D412-702-023		CHG 002 and subsequent
	D412-702-027		
	D412-702-029		
D3446-043	D412-702-021	D4387-043	CHG 003 and subsequent
	D412-702-025		CHG 002 and subsequent






Customers who want to upgrade their shoulder harnesses may replace their existing D3446-041/-043 with D4387-041/-043 per this service instruction.

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: 
D. SHEPHERD (DE # 02)

DATE: 11.05.09
CERT. NO.: SH04-7
ISSUE NO.: 3

A	NEW ISSUE	MB	11.05.09
REV.		BY	DATE
DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9559	SHEET 1 OF 1
APPROVED		TITLE	SCALE
DE APPR.		HARNESS CHANGE	NTS
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